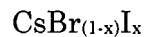


REMARKS

Claims 1-11 stand rejected over the combination of JP 000-249768 (Nichimura) in view of the Hamanatsu product literature. The latter reference is cited only as showing the use of a particular type of photoelectron multiplier tube.

The primary reference describes the use of a doped CsBr crystal as a scintillator. The doped CsBr has been prepared with specified amounts of added iodine. That crystal has the formula



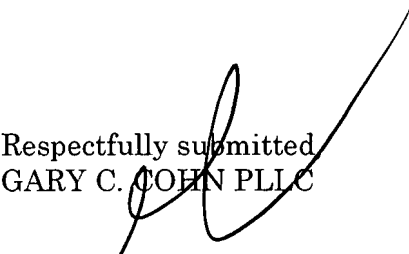
where x is from 0.01 to 0.1. Therefore, at least one mole percent of bromide ions in the crystal are replaced with iodide ions. The reference further teaches that x is preferably at least 0.05, in which case five mole percent or more of the bromide ions are replaced with iodide.

By contrast, the CsBr crystal of the present invention is essentially a pure CsBr crystal, which has, at most, insignificant amounts of impurities such as iodide. For example, the particular crystal used in the examples of the present application contained only trace quantities of iodide ion, corresponding to an x value of 0.0022, or only 22% of the lowest amount specified in the Nichimura reference.

The Nichimura reference actually teaches away from the use of an essentially pure CsBr crystal. According to the reference, fluorescence intensity becomes weak when the value of x is less than 0.01.

Since neither reference teaches or suggests the use of the high purity CsBr crystal in as a scintillator, and because the primary reference actually teaches away from using such a crystal, the claimed invention is neither anticipated by nor obvious over the cited references.

Respectfully submitted,
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